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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,985	10/16/2003	Frank Akselberg	MRKS/0128	8123
36735	7590	06/22/2005	EXAMINER	
MOSER, PATTERSON & SHERIDAN, L.L.P. 3040 POST OAK BOULEVARD, SUITE 1500 HOUSTON, TX 77056-6582			DEVORE, PETER T	
			ART UNIT	PAPER NUMBER
			3751	

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,985

Applicant(s)

AKSELBERG, FRANK

Examiner

Peter T. deVore

Art Unit

3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Mercier.

The Mercier reference discloses an assembly comprising a pump 11, a microvalve 34', an inlet 28, an outlet 36, a valve body 40, a pilot actuator having a first portion 38 and a second portion 37, and a pressure relief valve 80.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2092717 (Weirich).

The Weirich reference discloses a pilot operated check valve comprising a housing 10a, a valve body/ball 11, a valve seat 13, a pilot piston rod/pilot actuator

comprising a rod 24 and a piston 17, a gasket 25, a valve spring 12, a pilot spring 20, an inlet port 14, an outlet port 16, a pilot port 23, and a pilot drain 21, but remains silent as to the dimensions of the valve. However, it would have been obvious to make the valve to have an external diameter of less than ten millimeters, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 2336.

Claims 1, 2, and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seaney.

The Seaney reference discloses a pilot operated check valve comprising a valve body/ball 46, a valve seat 43, a pilot piston rod 37, a valve spring 47, a pilot spring 59, an inlet port 58, an outlet port 45, and a valve block 11, but remains silent as to the dimensions of the valve. However, it would have been obvious to make the valve to have an external diameter of less than ten millimeters, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 2336.

Claims 8, 10-17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weirich in view of Eike.

The Weirich reference discloses a valve as discussed supra, but does not disclose seals externally surrounding the housing and arranged between the ports so that the housing engages a recess within a valve block as claimed. However, the Eike reference discloses a similar valve having seals around the housing and between the

ports (see Figure 4) and a valve block surrounding the valve (see Figure 3) for convenient connection of the valve to its associated conduits. It would have been obvious to employ seals and a valve block as claimed with the Weirich valve in view of Eike for convenient connection of the valve to its associated conduits.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mercier in view of Block.

The Mercier reference discloses an assembly as discussed supra, but does not disclose a gasket around the pilot actuator. However, the Block reference discloses a similar assembly including a gasket 41 around the pilot actuator (see Figure 2) to ensure proper isolation of pressure between the two ends of the actuator. It would have been obvious to employ a gasket around the pilot actuator of the Mercier device in view of Block to ensure proper isolation of pressure between the two ends of the actuator.

Response to Arguments

Applicant's arguments with respect to claims 10-19 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments regarding claims 1-3 and 5-9 have been fully considered but they are not persuasive. Applicant relies on a statement in the specification that "valves having ordinary dimensions cannot be scaled down for use in microvalves" to show that the prior art valves cannot be modified to have the claimed smaller dimensions. However, in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, cert. denied, 469 U.S. 830, it was held that absent a showing that a device having the claimed

dimensions would perform differently than the prior art device, the device is not patentably distinct from the prior art. See MPEP 2144.04(IV)(A) 2nd para. It is the Examiner's position that Applicant's reliance on a general statement to that effect in the specification does not constitute a sufficient showing.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Kot, Yang, and Presnell references disclose similar valve assemblies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter T. DeVore whose telephone number is (571) 272-4884. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JUSTINE R. YU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

6/20/05